### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-019876 Address: 333 Burma Road **Date Inspected:** 15-Dec-2009

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** See Below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** OBG

## **Summary of Items Observed:**

Summary of Items Observed: On this date Caltrans OSM Quality Assurance (QA) Inspector, Mike Hasler was present during the times noted above for observations relative to the work being performed.

OBG Segment Name: 10AW / Bay 14

This Caltrans QA inspector observed Shielded Metal Arc Welding (SMAW) in progress. Welder is identified as #058242, welding in the 4G position using welding procedure specification WPS-B-T-2114-TC-U4b-FCM-1. The weld is identified as SEG049A-027. ZPMC QC inspectors are identified as Mr. Xu Tao and certified welding inspector (CWI), Mr. Liu Hua Jie. The welding variables recorded by QC appeared to comply with the WPS.

OBG Segment Name: 11EE / Bay 14

This Caltrans QA inspector observed Flux Cored Arc Welding (FCAW) in progress. Welder is identified as #055491, welding in the 3G position using welding procedure specification WPS-B-T-2233-TC-U4b-F. The weld is identified as DP431-001-058. ZPMC QC inspectors are identified as Mr. Zhong Guo Hui and CWI, Mr. Lv Li Qing. The welding variables recorded by QC appeared to comply with the WPS.

OBG Segment Name: 9AW / North of Bay 14

This Caltrans QA Inspector observed welded surface for bottom plate butt splice weld with unequal thicknesses was not transitioned. The affected Component is designation as Bottom Plate BP3025A, BP-3026A and BP3027A subassemblies. The bottom plate material description as follows: Pl. #3149B/ 35mm plate joining Pl. #3149A/ 28mm plate. Welds are identified as BP3025A-001-001, BP3026A-001-001 and BP3027A-001-001. AWS D1. 5-2002 "Scope: 2.17.5.1 Butt joint between parts having unequal thicknesses and subject to tensile stress shall

## WELDING INSPECTION REPORT

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have a smooth transition between the offset surfaces at a slope of no more than 1 transverse to 2.5 longitudinal with the surface of either part. The transition may be accomplished by sloping the weld surfaces, by chamfering the thicker part, or by a combination of the two methods (see Figure 2.7)".

This QA inspector generated a Quality Assurance-Incident Report for the welding violation. See Quality Assurance-Incident Report, dated 12-15-09 for additional information.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

#### **Summary of Conversations:**

"As noted within the contents of this report."

### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact, who represents the Office of Structural Materials for your project.

Inspected By:	Hasler,Mike	Quality Assurance Inspector
Reviewed By:	Riley,Ken	QA Reviewer